WHAT IS CLAIMED IS:

1.   An image processing apparatus comprising:

an input unit that acquires a RGB signal corresponding to a color image;

5   a conversion unit that converts the RGB signal into a CMY signal;

an extraction unit that extracts an image attribute from the CMY signal; and

a processing unit that applies, based on the image attribute, an adaptive image processing to the RGB signal.

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2.   The image processing apparatus according to claim 1, wherein the extraction unit calculates an edge amount of the color image as the image attribute.

15   3.   The image processing apparatus according to claim 1, wherein the extraction unit generates an image area separating signal that is used to separate an image into a plurality of areas as the image attribute.

4.   The image processing apparatus according to claim 1, wherein

20   the conversion unit changes a conversion coefficient for converting the RGB signal into the CMY signal based on a type of the color image.

5.   The image processing apparatus according to claim 4, wherein the type of the color image is any one of a print image, a photographic

25   printing paper image, and a photocopy image.

6.   An image processing apparatus comprising:

an input unit that acquires a RGB signal corresponding to a color image;

a first conversion unit that converts the RGB signal into a CMY signal;

an extraction unit that extracts an image attribute from the CMY signal;

a second conversion unit that generates a signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal from the RGB signal; and

a processing unit that applies, based on the image attribute, an adaptive image processing to the signal generated by the second conversion unit.

7.   The image processing apparatus according to claim 6, wherein the extraction unit calculates an edge amount of the color image as the image attribute.

8.   The image processing apparatus according to claim6, wherein the extraction unit generates an image area separating signal that is used to separate an image into a plurality of areas as the image attribute.

9.   The image processing apparatus according to claim 6, wherein the first conversion unit changes a conversion coefficient for converting the RGB signal into the CMY based on a type of the color image.

10.   The image processing apparatus according to claim 9, wherein the type of the color image is any one of a print image, a photographic printing paper image, and a photocopy image.

5   11.   An image processing apparatus comprising:

an input unit that acquires a RGB signal corresponding to a color image;

a first extraction unit that extracts a first image attribute from the RGB signal;

10   a conversion unit that converts the RGB signal into a CMY signal;

a second extraction unit that extracts a second image attribute from the CMY signal; and

a processing unit that applies, based on the first image attribute and the second image attribute, an adaptive image processing to the

15   RGB signal.

12.   The image processing apparatus according to claim 11, wherein the first extraction unit generates an image area separating signal that is used to separate an image into a plurality of areas as the first

20   image attribute, and

the second extraction unit calculates an edge amount of the color image as the second image attribute.

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13.   The image processing apparatus according to claim 12, wherein the second extraction unit calculates the edge amount from a C signal and an M signal of the CMY signal as the second image attribute.

5   14.   The image processing apparatus according to claim 11, wherein the conversion unit changes a conversion coefficient for converting the RGB signal into the CMY signal based on a type of the color image.

15.   The image processing apparatus according to claim 14, wherein
10   the type of the color image is any one of a print image, a photographic printing paper image, and a photocopy image.

16.   An image processing apparatus comprising:

an input unit that acquires a RGB signal corresponding to a color
15   image;

a first extraction unit that extracts a first image attribute from the RGB signal;

a first conversion unit that converts the RGB signal into a CMY signal;

20   a second extraction unit that extracts a second image attribute from the CMY signal;

a second conversion unit that generates a signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal from the RGB signal; and

25   a processing unit that applies, based on the first image attribute

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and the second image attribute, an adaptive image processing to the signal generated by the second conversion unit.

17.   The image processing apparatus according to claim 16, wherein the first extraction unit generates an image area separating signal that is used to separate an image into a plurality of areas as the first image attribute, and

the second extraction unit calculates an edge amount of the color image as the second image attribute.

18.   The image processing apparatus according to claim 17, wherein the second extraction unit calculates the edge amount from a C signal and an M signal of the CMY signal as the second image attribute.

19.   The image processing apparatus according to claim 16, wherein the first conversion unit changes a conversion coefficient for converting the RGB signal into the CMY based on a type of the color image.

20.   The image processing apparatus according to claim 19, wherein the type of the color image is any one of a print image, a photographic printing paper image, and a photocopy image.

21.   An image processing apparatus comprising:

an input unit that acquires a RGB signal corresponding to a color image;

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a first conversion unit that converts the RGB signal into a CMY signal;

a first extraction unit that extracts a first image attribute from the CMY signal;

5 a second conversion unit that generates a signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal from the RGB signal;

a second extraction unit that extracts a second image attribute from the signal generated by the second conversion unit; and

10 a processing unit that applies, based on the first image attribute and the second image attribute, an adaptive image processing to the RGB signal.

22. The image processing apparatus according to claim 21, wherein
15 the first extraction unit calculates an edge amount of the color image as the first image attribute, and

the second extraction unit generates an image area separating signal that is used to separate an image into a plurality of areas as the second image attribute.

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23. The image processing apparatus according to claim 22, wherein the first extraction unit calculates the edge amount from a C signal and an M signal of the CMY signal as the second image attribute.

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24.   The image processing apparatus according to claim 21, wherein the first conversion unit changes a conversion coefficient for converting the RGB signal into the CMY signal based on a type of the color image.

5   25.   The image processing apparatus according to claim 24, wherein the type of the color image is any one of a print image, a photographic printing paper image, and a photocopy image.

26.   An image processing apparatus comprising:

10   an input unit that acquires a RGB signal corresponding to a color image;

a first conversion unit that converts the RGB signal into a CMY signal;

a first extraction unit that extracts a first image attribute from the

15 CMY signal;

a second conversion unit that generates a signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal from the RGB signal;

a second extraction unit that extracts a second image attribute

20 from the signal generated by the second conversion unit; and

a processing unit that applies, based on the first image attribute and the second image attribute, an adaptive image processing to the signal generated by the second conversion unit.

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27.   The image processing apparatus according to claim 26, wherein the first extraction unit calculates an edge amount of the color image as the first image attribute, and

the second extraction unit generates an image area separating

5   signal that is used to separate an image into a plurality of areas as the second image attribute.

28.   The image processing apparatus according to claim 27, wherein the first extraction unit calculates the edge amount from a C signal and

10   an M signal of the CMY signal as the second image attribute.

29.   The image processing apparatus according to claim 26, wherein the first conversion unit changes a conversion coefficient for converting the RGB signal into the CMY signal based on a type of the color image.

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30.   The image processing apparatus according to claim 29, wherein the type of the color image is any one of a print image, a photographic printing paper image, and a photocopy image.

20   31.   An image processing method comprising:

acquiring a RGB signal corresponding to a color image;

converting the RGB signal into a CMY signal;

extracting an image attribute from the CMY signal; and

applying, based on the image attribute, an adaptive image

25   processing to the RGB signal.

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32.   An image processing method comprising:

acquiring a RGB signal corresponding to a color image;

converting the RGB signal into a CMY signal;

extracting an image attribute from the CMY signal; and

5   generating a signal including either of a luminance/chrominance

difference signal and a lightness/chromaticity signal from the RGB signal;

applying, based on the image attribute, an adaptive image

processing to the signal including either of a luminance/chrominance

difference signal and a lightness/chromaticity signal.

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33.   An image processing method comprising:

acquiring a RGB signal corresponding to a color image;

extracting a first image attribute from the RGB signal;

converting the RGB signal into a CMY signal;

15   extracting a second image attribute from the CMY signal; and

applying, based on the first image attribute and the second image

attribute, an adaptive image processing to the RGB signal.

34.   An image processing method comprising:

20   acquiring a RGB signal corresponding to a color image;

extracting a first image attribute from the RGB signal;

converting the RGB signal into a CMY signal;

extracting a second image attribute from the CMY signal;

generating a signal including either of a luminance/chrominance

25   difference signal and a lightness/chromaticity signal from the RGB signal;

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and

applying, based on the first image attribute and the second image attribute, an adaptive image processing to the signal including either of a luminance/chrominance difference signal and a lightness/chromaticity

5   signal.

35.   An image processing method comprising:

acquiring a RGB signal corresponding to a color image;

converting the RGB signal into a CMY signal;

10   extracting a first image attribute from the CMY signal;

generating a signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal from the RGB signal;

extracting a second image attribute from the signal including either of a luminance/chrominance difference signal and a

15   lightness/chromaticity signal; and

applying, based on the first image attribute and the second image attribute, an adaptive image processing to the RGB signal.

36.   An image processing method comprising:

20   acquiring a RGB signal corresponding to a color image;

converting the RGB signal into a CMY signal;

extracting a first image attribute from the CMY signal;

generating a signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal from the RGB signal;

25   extracting a second image attribute from the signal including

either of a luminance/chrominance difference signal and a
lightness/chromaticity signal; and

applying, based on the first image attribute and the second image

attribute, an adaptive image processing to the signal including either of a

5   luminance/chrominance difference signal and a lightness/chromaticity

signal.

37.   A computer product that makes a computer execute:

acquiring a RGB signal corresponding to a color image;

10   converting the RGB signal into a CMY signal;

extracting an image attribute from the CMY signal; and

applying, based on the image attribute, an adaptive image

processing to the RGB signal.

15   38.   A computer product that makes a computer execute:

acquiring a RGB signal corresponding to a color image;

converting the RGB signal into a CMY signal;

extracting an image attribute from the CMY signal; and

generating a signal including either of a luminance/chrominance

20   difference signal and a lightness/chromaticity signal from the RGB signal;

applying, based on the image attribute, an adaptive image

processing to the signal including either of a luminance/chrominance

difference signal and a lightness/chromaticity signal.

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39.　A computer product that makes a computer execute:

acquiring a RGB signal corresponding to a color image;

extracting a first image attribute from the RGB signal;

converting the RGB signal into a CMY signal;

5　　extracting a second image attribute from the CMY signal; and

applying, based on the first image attribute and the second image

attribute, an adaptive image processing to the RGB signal.

40.　A computer product that makes a computer execute:

10　acquiring a RGB signal corresponding to a color image;

extracting a first image attribute from the RGB signal;

converting the RGB signal into a CMY signal;

extracting a second image attribute from the CMY signal;

generating a signal including either of a luminance/chrominance

15　difference signal and a lightness/chromaticity signal from the RGB signal;

and

applying, based on the first image attribute and the second image

attribute, an adaptive image processing to the signal including either of a

luminance/chrominance difference signal and a lightness/chromaticity

20　signal.

41.　A computer product that makes a computer execute:

acquiring a RGB signal corresponding to a color image;

converting the RGB signal into a CMY signal;

25　　extracting a first image attribute from the CMY signal;

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generating a signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal from the RGB signal;

extracting a second image attribute from the signal including either of a luminance/chrominance difference signal and a

5 lightness/chromaticity signal; and

applying, based on the first image attribute and the second image attribute, an adaptive image processing to the RGB signal.

42. A computer product that makes a computer execute:

10 acquiring a RGB signal corresponding to a color image;

converting the RGB signal into a CMY signal;

extracting a first image attribute from the CMY signal;

generating a signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal from the RGB signal;

15 extracting a second image attribute from the signal including either of a luminance/chrominance difference signal and a lightness/chromaticity signal; and

applying, based on the first image attribute and the second image attribute, an adaptive image processing to the signal including either of a

20 luminance/chrominance difference signal and a lightness/chromaticity signal.